

[PROCESS FOR DETERMINING THE VARIATION IN THE RELATIVE PERMEABILITY OF AT LEAST ONE FLUID IN A RESERVOIR]

Abstract of Disclosure

A method for determining for a reservoir (1) containing fluids (W, O), the variation in the relative permeability (k_{rO} , k_{rW}) of at least one of the fluids, as a function of the saturation of at least one of the fluids (W, O), is provided. According to this method a saturation distribution of one of the fluids of the reservoir is determined on the basis of a measurement of a physical property in the reservoir. A dynamic model (20) for the flow of fluids in the reservoir (1) is created. The dynamic model generates a saturation distribution. The saturation distribution (40) generated by the dynamic model is compared with saturation distribution obtained from measurement. The dynamic model (20) is updated with intermediate relative permeability values (k_{rO}) and (k_{rW}), and steps b and c are repeated if the saturation distribution generated by the dynamic model and that determined on the basis of measurement do not coincide.

Figures